

## *REMARKS*

Applicant thanks the Examiner for the very thorough consideration given the present application.

Claims 1, 5-9, 12-16, 18, 19 and 21-28 are now present in this application. Claims 1, 9, 16, 19, 22, 24 and 26-28 are independent. Claims 1, 9, 16, 19, 22 and 24 have been amended. Claims 2-4, 10, 11, 17 and 20 have been canceled. Claims 26-28 have been added. No new matter is involved.

Reconsideration of this application, as amended, is respectfully requested.

### *Priority Under 35 U.S.C. § 119*

Applicant thanks the Examiner for acknowledging Applicant's claim for foreign priority under 35 U.S.C. §119, and receipt of the certified priority document.

### *Election of Species Requirement*

The Examiner has made the Election of Species Requirement final, and has withdrawn claims 9-15, 19-21, 24 and 25 from further consideration.

Applicant continues to traverse this requirement for a number of reasons.

Firstly, the Examiner has incorrectly designated the species. In this regard, MPEP §806.04(e) clearly points out that species are definitions of inventions and that *claims are never species*. The election of species requirement indicates that the different species are different groups of claims. This is improper and for this reason alone the restriction requirement should be withdrawn.

Secondly, the Examiner has not established that there is an undue burden to search and examine the two embodiments being claimed in this Application. As evidence of this, Applicant respectfully submits that the U.S. Patent classification search for these two embodiments is coextensive, i.e., the U.S. Patent Classification System does not separately classify repair structured depending on which LCD lines on which they are located.

As further evidence of this, Applicant respectfully notes that the file history of U.S. Patent 6,882,375, which is applied in the rejection of Applicant's claimed invention, presents separate claims to repair lines located on pixel electrodes and repair lines located on gate electrodes and no restriction requirement is of record in that Application. This information is available from the public PAIR system on the USPTO web site.

Thirdly, in response to the statement in the outstanding Office Action that in order for Applicant to present a cogent argument relative to their being no showing of a serious burden, Applicant must demonstrate that the Examiner's

separate species is in error. Applicant respectfully submits that whether Applicant discloses separate species is irrelevant to whether there is an undue administrative burden on the Examiner. However, one relevant factor is the scope of the prior art that must be searched. As pointed out above, the prior art searched for the claimed LCD electrode repair patterns in the U.S. Patent Classification System appears to be the same. Applicant's below-identified representative has reviewed the USPTO's Manual of Classification and cannot find different subclasses for LCD electrode repair features in the most pertinent class, i.e., Class 349, entitled, Liquid Crystal Cells, Elements and Systems. Moreover, even if a few additional subclasses have to be searched, which has not been established to be the case, that fact alone does not mean that searching two different species constitutes a serious administrative burden on the Examiner. Furthermore, as also pointed out above, the U.S. patent used as the basis for rejection Applicant's claims, contains claims to two separate types of repair electrodes, i.e., gate electrodes and pixel electrodes, and the USPTO's PAIR system does not indicate that a restriction/election of species requirement was required in that Application.

Fourthly, the burden of establishing that a serious burden to search and examine two species falls on the Examiner, not on Applicant. MPEP §803 clearly indicates that, for purposes of the initial requirement, a serious burden on the Examiner may be *prima facie* shown by appropriate explanation of separate

classification or separate status in the art, or a different field of search as defined on MPEP §808.02. The initial Office Action did not do any of these things and the outstanding Office Action doesn't, either. In fact, in view of the cited and applied Kim patent, which discloses and separately claims different repair electrode species, Applicant's claimed species do not have a different classification, do not have a separate status in the art nor do they require a different field of search.

Accordingly, Applicant respectfully submits that the election of species requirement is improper and should be withdrawn.

Furthermore, Applicants have added claims 26-28, which are generic to both species, and this linking claim is allowable for reason discussed, below. For this additional reason, restriction/election is improper.

Reconsideration and withdrawal of the restriction/election of species requirement and reinstatement of the withdrawn claims are respectfully requested.

Rejection Under 35 U.S.C. § 102

Claims 1-3, 5-8, 16, 18, 22 and 23 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 6,882,375 to Kim. This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

This rejection is moot with respect to claim 2, which has been canceled.

Claims 1 and 16 have been amended to positively recite that the repair pattern includes protrusions extending in opposite directions from a portion of the gate line, so as to be formed under two adjacent pixel electrodes; and claim 22 has been amended to positively recite forming a gate line having a repair pattern including protrusions extending in opposite directions from a portion of the gate line on a substrate. As a result, claims 1-3, 5-8, 16, 18, 22 and 23 positively recite a combination of features that are not disclosed in Kim. The outstanding Office Action tacitly admits this because the claims that recite the features added to claims 1, 9 and 22 have not been rejected as being anticipated by Kim.

Reconsideration and withdrawal of this rejection of claims 1-3, 5-8, 16, 18, 22 and 23 are respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 4 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim. This rejection is respectfully traversed.

Because the rejection is based on 35 U.S.C. §103, what is in issue in such a rejection is "the invention as a whole", not just a few features of the

claimed invention. Under 35 U.S.C. §103, "[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The determination under section 103 is whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. See In re O'Farrell, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). In determining obviousness, the Examiner must explain what the differences between the claimed invention and the prior art are and provide objective factual evidence to support a conclusion that it would be obvious to one of ordinary skill in the art to achieve the claimed invention, which includes those missing features.

In the second place, in rejecting claims under 35 U.S.C. §103, it is incumbent on the examiner to establish a factual basis to support the legal conclusion of obviousness. See, In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem

from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. F-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note, In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

A showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d

1225, 1232 (Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not “evidence.” See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999).

A factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Moreover, allegations of motivation to modify a reference that are in the form of broad generic conclusions unsupported by objective factual evidence and, standing alone, are not “evidence” of proper motivation to combine these references. See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999).

The outstanding Office Action admits that Kim does not disclose the recited repair pattern including protrusions extending in opposite directions from the gate line so as to be formed under two adjacent pixel electrodes.

In an attempt to remedy this deficiency, the Office Action merely speculates that it would be obvious to provide the missing feature without even mentioning why one of ordinary skill would be motivated to do so, and without providing any objective factual evidence of why one of ordinary skill in the art would be motivated to do so, and without providing any objective factual



evidence in the form of a reference that shows such the claimed protrusions extending in opposite directions.

Moreover, the argument presented in the Office Action to support the completely speculative conclusion of obviousness of the claimed invention is insufficient to support that conclusion.

The Examiner “takes Official Notice of the equivalence of the Kim’s repair pattern and the modification to Kim’s repair pattern for their use in any of these known equivalents for the purposes of repairing a display defect . . .”

The Office Action never explains what the “known equivalents” are, so the rejection is fundamentally unclear in this regard.

Nor does the Office Action provide any objective factual evidence of what these “known equivalents” are, as required by the aforementioned case law, e.g., the above-cited “In re Lee” decision.

Moreover, Official Notice can only be taken of facts of notorious character and serve only to “fill in the gaps” in an insubstantial manner. It is never appropriate to rely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection was based. – see MPEP §2144.03, last paragraph. In this situation, the Office Action improperly takes Official Notice of the principal evidence on which to base the entire rejection of claims 4 and 17.

The Office Action concludes by stating that the selection of the known equivalents (none of which has been explained or supported by objective factual evidence) is within the level of ordinary skill in the art.

This statement is insufficient to make out a *prima facie* case of obviousness of any claimed invention because it does not even address the issue of proper motivation to modify the reference on which the rejection is based. In other words, even if something is within the skill level of one of ordinary skill in the art to make use, is irrelevant to the issue of whether the Office Action has provided objective factual evidence that one of ordinary skill in the art would have the proper motivation to modify the base reference, as suggested. The Office Action completely fails to even address the proper motivation issue, and also does not provide any objective factual evidence, let alone sufficient objective factual evidence to make out a *prima facie* case of proper motivation to modify Kim as suggested in this rejection of claims 4 and 17.

Accordingly, the Office Action fails to make out a *prima facie* case of obviousness of the invention recited in claims 4 and 17.

Reconsideration and withdrawal of this rejection of claims 4 and 17 are respectfully requested.

Furthermore, because the features of claim 4 have been added to claim 1 and because the features of claim 17 have been added to claim 16, and because

similar features have been added to claim 22, claims 1, 16 and 22 and the claims than depend from those claims are patentably distinct from Kim.

### New Claims

Claims 26-28 have been added as generic, linking claims. These claims are considered to be allowable because Kim neither discloses or suggests the claimed repair patterns includes protrusions extending in opposite directions from either a gate line or a pixel electrode.

### Withdrawn Claims

Claims 9-15, 19-21, 24 and 25 should be reinstated and examined on their merits for reasons stated above. These claims are believed to patentably define over Kim because they have been amended in a manner similar to claims 1, 16 and 22 to recite features neither disclosed nor suggested by Kim.

### Additional Cited References

Because the remaining references cited by the Examiner have not been utilized to reject the claims, but have merely been cited to show the state of the art, no comment need be made with respect thereto.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Robert J. Webster, Registration No. 46,472, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Date: June 1, 2006

Respectfully submitted,

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